

REMARKS

Initially, Applicant notes that the remarks and amendments presented in this paper are consistent with those presented to the Examiner by telephone on November 26, 2007.

The Office Action mailed September 4, 2007 considered and rejected claims 1-23. Claims 10-21 were rejected under 35 U.S.C. 101 for being directed to non-statutory subject matter. Claims 1-23 were rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claims 1-3, 10-15, and 22-23 were rejected under 35 U.S.C. 102(b) as being anticipated by Fuchs et al. (US 5,440,726) hereinafter Fuchs. Claims 4-8 and 16-20 were rejected under 35 U.S.C. 103(a) as being unpatentable over Fuchs in further view of Kantor et al. (US 2003/0126229) hereinafter Kantor. Claims 9 and 21 were rejected under 35 U.S.C. 103(a) as being unpatentable over Fuchs and Kantor in further view of what was purportedly well known and expected by one of ordinary skill in the art at the time of the invention.¹

By this paper, claims 1-23 have been amended and no claims have been canceled or added, such that claims 1-23 remain pending, of which claims 1, 10, and 22 are the only independent claims at issue.²

With regard to the 35 U.S.C. §101 rejection, it will be noted that independent claim 10 has been amended to claim only computer readable **storage** media **storing** the instructions. Storage media is a limited set of computer readable media that does not include the rejected communication media. In view of this amendment, Applicant respectfully submits that the 35 U.S.C. §101 rejection is now moot.

Numerous other amendments have been made to the claims in response to the objections noted in the Office Action as well as the 35 U.S.C. § 112 rejection of the claims. Specifically the term "may be" has been removed and replaced with the definite term of "is". As to claim 22, "such messages" has been replaced by "received normal messages" to correct the antecedent basis of the claim.

¹ Although the prior art status of the cited art is not being challenged at this time, Applicant reserves the right to challenge the prior art status of the cited art at any appropriate time, should it arise. Accordingly, any arguments and amendments made herein should not be construed as acquiescing to any prior art status of the cited art.

² Support for the amendments is found throughout the Specification and including, but not limited to the disclosure of pages 7, 14, and 15.

As recited in the claims, the present invention is generally directed to embodiments for ensuring that messages are processed even if the messages are received in recovery mode. Claim 1, for example, recites a method for a computer system operating in recovery mode to ensure the reliable processing of messages that are received while the computer system is in recovery mode. In the method a message corresponding to a particular message transaction is received, wherein the message is a normal message suitable for normal mode operations and an instance governing the particular message transaction is in a recovery mode rather than a normal mode. Upon receiving the message, state information corresponding to the particular message transaction is used to determine that the instance governing the particular message transaction is in recovery mode rather than a normal mode. The received message is then determined to be a normal message suitable for normal mode operations, but the message cannot be processed until the instance is in the normal mode. The received message is then placed into a persistent queue for later processing when the instance is in a normal mode rather than recovery mode. The recovery mode is then completed using the recovery messages.

The remaining independent claims are closely related to claim 1. Claim 10 recites a storage media storing a computer program product corresponding to the method of claim 1, while claim 22 recites a method similar to claim 1 using functional step for language in the place of some of the acts recited in claim 1.

The Office Action cites Fuchs as teaching all of the limitations of the independent claims. Applicants respectfully disagree with this assertion. In particular, Applicant notes that the cited art of Fuchs is directed to a method for recovering from a failure and does not teach or suggest how to respond to non-recovery messages during the recovery process. Fuchs describes the use of a receiver log file that logs input messages before they are processed. During a normal mode process data is read from an IPC channel and the received message is logged into receiver log file. However, in the recovery state described in Fuchs, the input data will be read from the receiver log file up to a certain point before any data can be read from a regular input channel.

Applicant respectfully submits that the receiver log of Fuchs does not teach logging of normal messages during the recovery mode. The passage cited by the Examiner as teach this limitation is directed to logging messages during normal mode, not recovery mode. Indeed, nowhere within Fuchs is the logging of messages described during recovery mode. In column 15 of Fuchs, it is disclosed that during the normal mode each message is logged upon receipt by the

application process and prior to being processed. However, when the application enters the recovery mode this process ends. In recovery mode the fread function (the same function that previously logged the incoming data) reads the input data from the receiver log file before any data can be read from a regular input channel. This suggests that fread function either reads the IPC channel and logs the data, or reads the data from the received message log, but not both at the same time. The disclosure is clear that the data is logged in normal mode, but specifically states a different function during recovery mode.

The manner in which the embodiment of Fuchs processes the messages for recovery further supports the conclusion that data is not logged during recovery. Column 11 of Fuchs discloses how the messages contained within the received message log are treated during recovery. In particular, messages that were sent after the recovery line, the recovery line being the latest available globally consistent set of logical or actual checkpoint, are considered to be orphaned and are discarded. Thus there is no need within Fuchs to log messages received during the recovery process because they will be discarded. Fuchs makes no reference to what happens after recovery is complete and is instead only directed to how to recover from an inconsistent state.

Furthermore, in the rejection of dependent claims 4 and 16, the Office Action concedes that Fuchs is silent with regard to how received messages are handled during recovery mode. In view of the fact that each of the claims is directed to how messages are handled during recovery mode, Applicant respectfully submits that Fuchs alone cannot fully teach the limitations described in the claims.

Dependent claims 9 and 21 were rejected as being obvious to one of ordinary skill in the art at the time of the invention. However, Applicant respectfully submits that there would be no motivation within the teaching of Fuchs and Kantor to store input data. Fuchs specifically states that any data received after the recovery point is dropped. If the data is dropped, how could it be used after the recovery is completed? Furthermore, Fuchs assumes that any data received after the recover line and prior to the recovery is suspect. If the data is suspect, there would be no motivation to use the data. Instead, in Fuchs a clean start is made to ensure that the data is consistent.

In view of the foregoing, Applicant respectfully submits that the other rejections to the claims are now moot and do not, therefore, need to be addressed individually at this time. It will

be appreciated, however, that this should not be construed as Applicant acquiescing to any of the purported teachings or assertions made in the last action regarding the cited art or the pending application, including any official notice. Instead, Applicant reserves the right to challenge any of the purported teachings or assertions made in the last action at any appropriate time in the future, should the need arise. Furthermore, to the extent that the Examiner has relied on any Official Notice, explicitly or implicitly, Applicant specifically requests that the Examiner provide references supporting the teachings officially noticed, as well as the required motivation or suggestion to combine the relied upon notice with the other art of record.

In the event that the Examiner finds remaining impediment to a prompt allowance of this application that may be clarified through a telephone interview, the Examiner is requested to contact the undersigned attorney at 801-533-9800.

Dated this 4th day of January, 2008.

Respectfully submitted,

A handwritten signature in black ink, appearing to read 'R. D. Nydegger', with a stylized flourish at the end.

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